

## **Fertility in Men with Spinal Cord Injury**

Men with spinal cord injury (SCI) often have significant changes to their fertility. The ability to ejaculate is often changed when there has been a spinal cord injury. Additionally, sperm count can be altered following an SCI. Although ejaculation may be different than it was before your injury, fatherhood is not out of the question. There have been many recent medical advances in male fertility following SCI.

To achieve pregnancy the sperm must be ejaculated into the female vagina and the sperm must be present in sufficient numbers and motility (how well they are moving) in order for pregnancy to result.

### **After Spinal Cord Injury**

In men with SCI the nerves that are responsible for ejaculation may be changed or altered. Some men experience no ejaculation at all with sexual stimulation while others may have some oozing of semen (which may or may not contain sperm). Other men may have retrograde ejaculation (a harmless situation where the sperm end up in the bladder instead of coming out the end of the penis). Sperm count and motility are both lowered with SCI although there is a wide variation between men. All of these changes can cause problems with fertility.

However, with current sperm retrieval methods it is possible that some men with SCI will be able to become biological fathers. The use of fertility enhancement methods with a healthy female partner may help compensate for lowered sperm counts.

The currently available methods of sperm retrieval include the following:

### **Manual Retrieval**

If the ability to ejaculate is present, sperm may be obtained by self-stimulation or stimulation by a partner. The sperm is collected in a small container and taken to a lab where it is prepared for artificial insemination. Some couples have completed this process at home, using sperm as they are obtained and timing the insemination with the women's cycle correctly.

# Fertility in Men with Spinal Cord Injury

## Vibro-Stimulation

This method involves the application of a vibrator directly to the head of the penis. This method works best in men with injuries above the T10 level. This method can work even though you don't feel any sensation in the genitals as the extra stimulation of the vibrator acts on reflex centers located in the lower part of your spinal cord. An erection may or may not occur during this procedure which usually only takes a few minutes.

The main risk with this procedure is developing autonomic dysreflexia, a condition that causes a headache and sometimes a dangerous elevation of blood pressure. Initially vibro-stimulation should be done under medical supervision so that the correct type of vibrator is used and blood pressure can be monitored. If ejaculation occurs and there are no complications, a couple may be able to do this at home, timing the ejaculation with the woman's cycle correctly.

## Electro-Ejaculation

This method is used if vibro-stimulation is tried and is unsuccessful. This method involves the use of a special probe that is placed into the rectum and that delivers a mild electrical current to the nerves near the prostate gland. A specially trained doctor does this procedure. This may cause sperm to be released. The ejaculate is then collected and used for insemination into the partner. This procedure takes only a few minutes and is successful in a large percentage of men regardless of their level of spinal cord injury.

## Other Factors

Pregnancy also requires a female that is ovulating. Female partners should be assessed to make sure that their menstrual cycles are regular and that they are ovulating. In some cases medications can be used to promote ovulation and help to time the ovulation with particular sperm retrieval procedures.

The doctor may order sperm analysis at a lab. A sperm sample can be assessed at a lab to help determine the numbers of sperm and how well they are moving. In some cases, sperm samples can be cleaned of dead skin cells to help improve the motility.

Having an assessment of your ability to father a child, with a trial of vibro-stimulation and assessment of the sperm sample at a lab can be done at any time. You do not need a current female partner to be able to learn more about your potential to have a child.

**Medical Disclaimer:** The above information is not intended nor implied to be a substitute for professional medical advice. Always ask your physician or other qualified health professional about any matter concerning your individual health.

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**For further information:** Contact the Sexual Health Rehab Service, GF Strong Rehab Centre